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(54) **RECUMBENT CYCLE WITH IMPROVED SUSPENSION**

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(*) Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

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(52) **U.S. Cl.** **280/231**; 280/282; 280/283; 280/288.1

(58) **Field of Search** 280/231, 282, 280/281.1, 283, 288.1, 275, 274, 267

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(57) **ABSTRACT**

A recumbent cycling apparatus is provided that includes a frame structure, wheels rotatably attached to supporting the frame structure, and a central frame element configured to absorb and reduce the forces transmitted through the frame structure to a user. The frame structure has a front frame section and a back frame section that are substantially parallel to the ground. The central frame element is a curved elongated member composed of chromoly steel that is attached to the front frame section and the back frame section and extends therebetween. The central frame element is configured to allow the front frame section and the back frame section to move substantially independently in response forces exerted on the wheels. The central frame element is disposed in a substantially vertical plane above the back frame section and the front frame section and is substantially perpendicular thereto. A pair of recumbent seats are mounted on the back frame section in a side-by-side relationship. The cycling apparatus also has a control assembly configured to turn at least one of said plurality of wheels and a pedal-powered drive assembly to propel the cycling apparatus.

28 Claims, 4 Drawing Sheets